

Terrorising or Terror-Proofing Our Public? The Role of Risk Perception and Risk Communication in Mitigating the Risk to the Public

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Risk Perception, Risk Communication and Behaviour: Applied Academia

- Extensive literature exploring public perceptions of risk and risk communication.
- Applied Academia:
 - Communicating with the Public about CBRN Terrorism
 - Dirty Bomb
 - Plague
 - Smallpox
 - RED
 - Emergency Responders/CBRN Training
 - Hot zone exercises
 - Hospital Lockdowns
 - Violent Radicalisation





Objectives:

• Illustrate the importance of effective communication.

- Explain the variation in 'expert' vs. 'public' perceptions of risk.
 - Why do risk communication attempts fail?

 Suggest steps that can be taken to improve the uptake of risk messages.



The Importance of Effective Communication





Why Is Effective Communication Important?:

- Public psychological and behavioural responses will help determine subsequent morbidity and mortality rates.
- Effective public communication can reduce morbidity and mortality by enhancing the likelihood that:
 - At risk populations will take precautions
 - Encourage appropriate protective actions.
 - Reassure those not at risk
 - Reduce rumours and fears.
 - Facilitate relief efforts
 - Maintain public trust and confidence in agencies responsible for ensuring the welfare of the public.

(Becker, 2004; Gray & Ropeik, 2002; Henderson *et al.*, 2004; Sheppard *et al.*, 2006; *Vonderford, 2004;* Wray & Jupka, 2004, etc.)



The Power of Public Perceptions:

- Fear as a health risk

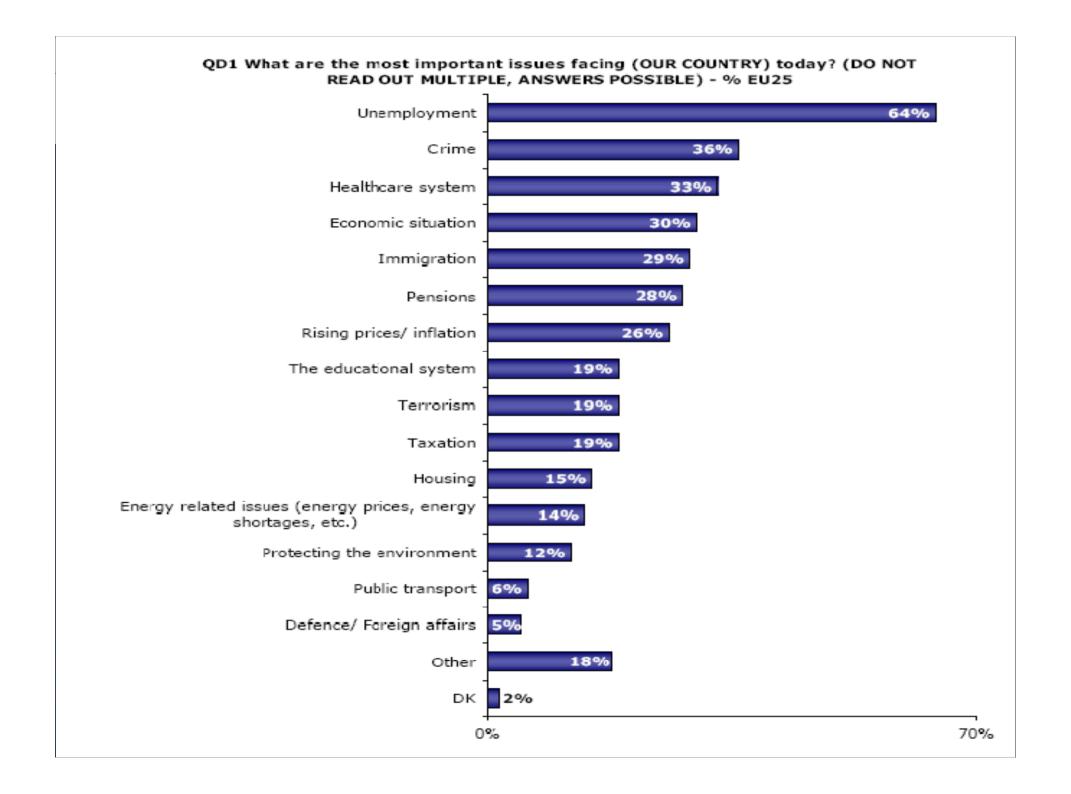
 Risk perceptions inform behaviour.
- Implications for physical health, as well as emotional health.
 - Drive vs. Fly (September 11th, 2001) (1,595 vs. 256 (3,019 overall)
- Public behaviour (driven by perception) can impact entire systems such as healthcare.
 - Radioactive incident in Goiania, Brazil (1987)
 - 112,000 sought examination/Reality = 4 deaths/260 contaminations
- Focus on <u>improving knowledge and understanding</u> as well as <u>managing expectations</u> in order to decrease the likelihood of overburdened emergency response systems:
 - Create familiarity around terminology, procedures, messengers.

(IAEA, 1998, Fullerton et al., 2003; Becker, 2004; Gray & Ropeik, 2002; North, 2005; Gigerenzer, 2006.



Threat Perception

Relative Likelihood





The Importance of Timing: Retention of Information

- In low-stress situations: the brain can hold on average, 7 messages.
- In high-stress situations: the brain can hold on average, 3 messages.

Retention of Information

■ After three hours: Radio – 70 percent

Newspaper – 72 percent Television – 85 percent

After three days: Radio – 10 percent

Newspaper – 20 percent Television – 60 percent



Apples and Oranges:

• Expert Perceptions of Risk:

- Can I identify a clear cause and effect relationship?
- Can I quantify the amount of harm?
- Do I suspect a hazard,based on past experience?
- Is there a possibility of an accident?
- Is there possible exposure to the risk (e.g. pollutant/violence)?
- Is there evidence of damage?

• Risk Perception Factors:

- Voluntary vs. Involuntary
- Familiar vs. Non-familiar
 - Unknown Risk: New, unknown to those exposed, delayed effects.
- Control vs. Lack of Control
- Fair vs. Not Fair
- Natural vs. Technological
- Dread vs. No Dread
 - Dread Risk: catastrophic potential, fatal consequences, uncontrollability, inequitable, and high risk to future generations



...Let's Call The Whole Thing Off

- When speaking about risk, lay-people and experts are often:
 - Speaking different languages
 - Solving different problems
 - Disagree about what is feasible.
 - —See the facts differently (Tanaka, 1998).



"Yellow? Don't call us until it's at least an orange alert."



Improving the Uptake of Risk Communication:



Improving the Uptake of Risk Messages:

- Failure to recognise communication as relevant to social selves or social world.
- A fine line exists between providing factual, useful information on risk and avoiding the creation of undue anxiety (Social Amplification of Risk).
- Government warnings that inform the public of a threat, but fail to offer useful advice also fail in their duty to the public.
- The public desire additional information on:
 - Where to obtain information
 - The current status of the disaster
 - Protective actions

- Protective behaviours
- Risk of exposure
- Signs or symptoms

(Lindy et al., , 2003; Henderson et al. 2004; Wray & Jupka, 2004; Freedman, 2005)



Communicating Risk: Building Trust

- Important to communicate with the public in advance of any crisis. This will keep them from feeling misled and uninformed → TRUST.
- Policy-makers must find a way to communicate the threat and the ability of the governments and other organisations to respond to these threats in order to ensure that members of the public have the ability to take action.
 - Information must be issued repeatedly, including:
 - How the threat has changed and is likely to change.
 - *How* safety is improved.
 - How Government or other organisations secures and monitors safety.
 - What this means for them in their day-to-day lives.
- The public feel reassured by the provision of information.
- Trust in the experts is <u>crucial</u> = full disclosure <u>where possible</u>.
- People want honest and accurate information, even if the info worries them.



Thank you! Any Questions?

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